

# THE CHRONICLE

of Higher Education

September 8, 1980 • \$1.25  
Volume XXI, Number 3

ISSN 0009-5982

WASHINGTON DC  
MAY 1980  
JOURNAL OF  
CONGRESSIONAL INFO SERVICE  
JOE MCNALLY  
377 WASH DC  
SAMPLE

Articles on inside pages

**A 1.1-per-cent rise in enrollment** this fall is predicted by the federal government. Story on Page 2.

**Scholars in women's studies** are seeking greater prominence in college curricula and academic research. Story on Page 3.

**Candidates get poor grades** from political scientists assessing the 1980 Presidential campaign at their annual meeting. Story on Page 7.

**School desegregation** has little effect on college-going rates of Hispanics, researchers report at a meeting of the American Sociological Association. Story on Page 6.

**Engineering programs** are ranked anew, according to the accomplishments of their graduates. Story and Fact-File on Page 8.

**Fears of politicization** have been stirred by a bill that would set spending ceilings for each of the 11 units of the National Institutes of Health. Story on Page 11.

**Expansion of student aid** wins handily in the House of Representatives but faces more opposition in the Senate. Story on Page 11.

**New support for basic research** is proposed in a \$600-million program unveiled by the White House. Story on Page 13.

**Mexico's biggest university** has named four women as deans, but women remain a minority in Mexican higher education. Story on Page 15.

**The anti-nuclear movement** has produced a lengthening shelf of "no-nuke" books. A survey of the literature will be found on Page 17.

## ALSO IN THIS ISSUE

|                               |       |
|-------------------------------|-------|
| Books and Magazines           | 17-20 |
| Bulletin Board                | 25-47 |
| Calendar                      | 24    |
| Canadian News                 | 16    |
| Deadlines                     | 24    |
| Deaths                        | 23    |
| Fact-File                     | 8     |
| Gazette                       | 23    |
| Grants                        | 24    |
| Ideas                         | 14    |
| International News            | 15-16 |
| Letters                       | 22    |
| Marginalia                    | 2     |
| News in Brief                 | 2     |
| Notes on Continuing Education | 2     |
| Point of View                 | 48    |
| Science                       | 10    |
| Textbooks                     | 20    |
| Washington News               | 11-14 |

## Faculty Stress Is Found to Be Highest Among Married Women, Single Men

Anxiety and depression among college teachers less prevalent than in general population

By Cheryl M. Fields

MONTREAL

Married female and unmarried male faculty members experience more stress and less satisfaction in their jobs than do other college teachers, a researcher said last week.

Anxiety, depression, and insomnia were the most frequent stress-related symptoms described by 681 faculty members in a recent study reported at the American Psychological Association's annual meeting here.

While 40.3 per cent of all the faculty members in the study said they experienced anxiety, 56.4 per cent of the single men and 48.9 per cent of the married women reported suffering from it, as compared with 46.3 per cent of the unmarried women and 35.9 per cent of the married men.

More than a third of the faculty members—34.5 per cent—said they suffered from depression. Among single men, 48.9 per cent reported being depressed, compared to 37 per cent of both married and unmarried women. Thirty-two per cent of the married men said they experienced depression.

Insomnia was reported by 41 per cent of the single men, by 36.7 per cent of the married women, by 29.6 per cent of the single women, and by 23.6 per cent of the married men.

The percentages were based on faculty members who reported experiencing the symptoms occasionally, often, or continuously.

Despite those findings, said Lynne S. Koester, assistant professor of child development and family relations at the Uni-

versity of North Carolina at Greensboro, academics generally said they experienced fewer stress-related symptoms than are reported by the general population.

Ms. Koester, who conducted the research with Charles H. Clark, assistant professor of reading at Western Illinois University, said the data were being analyzed further.

The survey included responses from faculty members at public and private institutions in 15 states and included assistant, associate, and full professors. Questionnaires were returned by 504 men and 177 women.

Ms. Koester said the data appeared to support other studies showing that marriage and children typically produce more stress for women professors than for their

*Continued on Page 6, Column 1*

## University Forbids Further Experiments by Biologist Who Cloned a Banned Virus

SAN DIEGO

A review board at the University of California at San Diego has forbidden a biologist to conduct any more cloning experiments in the wake of revelations that he copied genetic material earlier this year from a virus then banned from such studies.

A spokesman for the university said the restriction on cloning experiments by biologist Samuel Ian Kennedy was "indefinite" and would "last until the situation was resolved."

After investigating the incident, the biosafety committee of the university did not decide whether Mr. Kennedy had knowingly experimented with the banned virus, or whether the cloning was an accident.

"Either Dr. Kennedy had known the source and identity of the material used to clone DNA copies of the semliki forest virus or Dr. Kennedy, due to poor record keeping or lapse of memory, cloned the virus by mistake without prior identification," the committee concluded.

Mr. Kennedy strongly denied that he had knowingly violated guidelines published by the National Institutes of Health governing the conduct of certain categories of genetic studies.

The university's biosafety committee last week sent to the National Institutes of Health a report giving its conclusions on the incident.

An N.I.H. spokesman said last week that a committee would be formed to study the report, but that it was unclear how long it would be before the panel issues its final recommendations.

Officials at N.I.H. had said they would wait to see the university's report before deciding whether to launch their own investigation and whether to take any action against the university or the researcher. In its report, the biosafety committee ac-

knowledge that in late March or early April, Mr. Kennedy had cloned the semliki forest virus, which was then barred from use in such experiments. But it noted that in late July, the federal guidelines were liberalized to allow experiments with that virus, as well as with other organisms.

"Therefore no violation of currently acceptable safety procedures occurred," the report said.

Mr. Kennedy has indicated he intended to clone genetic material from the sindbis virus, which was allowed under the federal guidelines in effect earlier this year.

Officials at the university said last week that Mr. Kennedy was free to continue other experiments he might have had under way.

But the biosafety committee indicated that agreements between the panel and researchers concerning the conduct of advanced genetic experiments were based on "mutual trust."

"In the absence of mutual trust, permission for cloning should not be granted," the committee said.

While saying "Very categorically no" when asked last week if he had deliberately violated federal guidelines, Mr. Kennedy also conceded, "I probably would have come to the same conclusions."

Earlier he raised the possibility that someone might have deliberately sabotaged his work. He said he had received telephone calls complaining that the work he was doing was dangerous.

He did not name anyone he suspected of such action, however, a university spokesman said.

## THEOLOGIANS PICKET



DUBUQUE TELEGRAPH HERALD

C. Howard Wallace and Gene Harbaugh prepare signs for strike at the University of Dubuque's theological seminary. See Page 9.

## FACT-FILE

## Engineering Programs Ranked by Achievements of Graduates

| All Engineering                      |                        | Chemical Engineering |      |           |      |           |      | Civil Engineering |      |           |      |           |      |
|--------------------------------------|------------------------|----------------------|------|-----------|------|-----------|------|-------------------|------|-----------|------|-----------|------|
| Rank                                 | Citations <sup>1</sup> | Undergraduate        |      | Master's  |      | Doctorate |      | Undergraduate     |      | Master's  |      | Doctorate |      |
|                                      |                        | Citations            | Rank | Citations | Rank | Citations | Rank | Citations         | Rank | Citations | Rank | Citations | Rank |
| 1. Harvard U. <sup>2</sup>           | 73.9                   | 25                   | 5    | 30        | 6    | 125       | 2    | 19                | 1    | 20        | 5    | 34        | 11   |
| 2. Yale U.                           | 44.6                   | 5                    | 18   | 7         | 16   | 26        | 17   | 18                | 2    | 10        | 13   | 23        | 12   |
| 3. Columbia U.                       | 28.6                   | 7                    | 16   | 6         | 17   | 0         | 18   | 6                 | 13   | 6         | 16   | 14        | 15   |
| 4. Cal. Inst. of Tech.               | 25.0                   | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 5. Princeton U.                      | 24.5                   | 27                   | 2    | 27        | 9    | 88        | 7    | 11                | 6    | 26        | 4    | 86        | 3    |
| 6. Mass. Inst. of Tech. <sup>2</sup> | 24.0                   | 20                   | 6    | 67        | 1    | 160       | 1    | 6                 | 14   | 13        | 12   | 69        | 5    |
| 7. Ohio State U.                     | 16.7                   | 41                   | 1    | 45        | 4    | 34        | 15   | —                 | —    | 49        | 1    | 90        | 2    |
| 8. U. of Illinois, Urbana            | 16.6                   | 18                   | 8    | 50        | 2    | 94        | 6    | 12                | 5    | 6         | 17   | 10        | 16   |
| 9. U. of Cal., Berkeley              | 15.9                   | 12                   | 11   | 17        | 12   | 74        | 8    | 8                 | 10   | 8         | 15   | 55        | 7    |
| 10. U. of Pennsylvania               | 15.4                   | 27                   | 3    | 28        | 8    | 96        | 5    | 16                | 4    | 40        | 2    | 112       | 1    |
| 11. U. of Colorado                   | 15.1                   | 26                   | 4    | 12        | 13   | 41        | 14   | 4                 | 16   | 0         | 18   | 23        | 13   |
| 12. Syracuse U.                      | 14.8                   | 7                    | 15   | 42        | 5    | 57        | 11   | 8                 | 11   | 17        | 6    | 49        | 8    |
| 13. U. of Michigan                   | 14.3                   | 6                    | 17   | 18        | 11   | 61        | 10   | 6                 | 15   | 14        | 9    | 43        | 9    |
| 14. Carnegie-Mellon U.               | 14.3                   | 7                    | 14   | 30        | 7    | 34        | 16   | 8                 | 12   | 16        | 8    | 0         | 18   |
| 15. U. of Wisconsin, Madison         | 13.1                   | 14                   | 9    | 47        | 3    | 63        | 9    | 10                | 8    | 13        | 11   | 18        | 14   |
| 16. Stanford U.                      | 12.4                   | 14                   | 10   | 12        | 14   | 97        | 4    | 17                | 3    | 17        | 7    | 73        | 4    |
| 17. Iowa State U.                    | 12.1                   | 19                   | 7    | 10        | 15   | 50        | 12   | 9                 | 9    | 8         | 14   | 10        | 17   |
| 18. U. of Iowa                       | 10.9                   | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 19. Lehigh U.                        | 10.7                   | 10                   | 12   | 23        | 10   | 106       | 3    | 4                 | 17   | 38        | 3    | 40        | 10   |
| 20. Northwestern U.                  | 10.7                   | 8                    | 13   | 3         | 18   | 49        | 13   | 10                | 7    | 14        | 10   | 53        | 7    |
| 21. Washington U.                    | 10.6                   | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 22. U. of Pittsburgh                 | 10.1                   | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 23. U. of Rochester                  | 9.9                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 24. U. of Texas                      | 9.9                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 25. U. of Kansas                     | 9.7                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 26. Ill. Inst. of Tech. <sup>2</sup> | 9.7                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 27. Purdue U.                        | 9.3                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 28. U. of Minnesota                  | 9.3                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 29. U. of Nebraska                   | 9.2                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 30. Stevens Inst. of Tech.           | 9.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 31. Penn. State U.                   | 8.9                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 32. Cornell U.                       | 8.8                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 33. Tulane U.                        | 8.8                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 34. Case Western Res.                | 8.7                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 35. Brown U.                         | 8.5                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 36. Michigan State U.                | 8.4                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 37. Oregon State U.                  | 8.4                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 38. Rensselaer Poly. Inst.           | 8.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 39. U. S. Naval Academy              | 8.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 40. Kansas State U.                  | 7.9                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 41. U. of Cincinnati                 | 7.8                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 42. U. of Washington                 | 7.7                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 43. Louisiana State U.               | 7.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 44. U. of Notre Dame                 | 6.7                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 45. Rice U.                          | 6.4                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 46. U. of Southern Cal.              | 6.2                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 47. Virginia Poly. Inst.             | 6.1                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 48. Texas A&M U.                     | 6.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 49. Oklahoma State U.                | 6.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |
| 50. Drexel U.                        | 6.0                    | —                    | —    | —         | —    | —         | —    | —                 | —    | —         | —    | —         | —    |

<sup>1</sup> Citations in Who's Who in Engineering, per 1,000 living alumni.<sup>2</sup> Based on estimated number of living alumni.<sup>3</sup> Overall rank based on number of citations in Who's Who in Engineering, number of citations per 1,000 alumni, amount of engineering research funds, and amount of research funds per faculty member.<sup>4</sup> Industrial engineering included in mechanical engineering.

— Indicates program not offered or statistically significant data not available.

SOURCE: DEAN DONALD D. GLOWER, COLLEGE OF ENGINEERING, OHIO STATE UNIVERSITY

## Ohio State Dean Develops New System for Ranking Schools of Engineering

COLUMBUS, OHIO—Donald D. Glower, engineering dean at the Ohio State University, has developed a system for ranking the country's best engineering programs without resorting to the use of popularity polls.

"The proof of the quality of a program," he says, "lies in the quality of the product, the graduate."

To measure the quality of engineering graduates, Mr. Glower relied on an analysis of people listed in the 1977 issue of *Who's Who in Engineering*. He found 140 schools identified as having granted degrees to people cited in the book.

## Examining Career Success

"The quality of a graduate can be determined," he says, "by examining his career successes and estimating the probability of success for graduates of one school as compared to those of another."

Rankings of academic programs have usually been based on opinion polls among faculty members or deans in the field, he said.

The engineering schools with the largest number of citations in *Who's Who in Engineering* were ranked by Mr. Glower according to the number of citations per 1,000 living alumni. Results of the ranking are shown in the Fact-File above.

## Top Spenders

Mr. Glower ranked the engineering schools according to research spending (reported for 1976-77). The top 20:

| Rank                        | Research spending |
|-----------------------------|-------------------|
| 1. Mass. Inst. of Tech.     | \$25,524,000      |
| 2. Stanford U.              | 17,586,000        |
| 3. U. of Ill., Urbana       | 15,887,000        |
| 4. U. of Cal., Berkeley     | 13,717,000        |
| 5. Purdue U.                | 12,956,000        |
| 6. U. of Michigan           | 11,806,000        |
| 7. U. of Texas, Austin      | 9,247,000         |
| 8. Ohio State U.            | 8,576,000         |
| 9. U. of Wisconsin, Madison | 8,548,000         |
| 10. Cornell U.              | 8,196,000         |
| 11. Georgia Inst. of Tech.  | 8,066,000         |
| 12. U. of Florida           | 7,871,000         |
| 13. U. of Pennsylvania      | 6,339,000         |
| 14. Texas A&M               | 6,157,000         |
| 15. U. of Washington        | 5,716,000         |
| 16. Princeton U.            | 5,700,000         |

|                          |           |
|--------------------------|-----------|
| 17. Cal. Inst. of Tech.  | 5,338,000 |
| 18. Case Western Reserve | 5,313,000 |
| 19. Carnegie-Mellon U.   | 5,176,000 |
| 20. U. of So. Cal.       | 5,152,000 |

Mr. Glower then calculated the amount of research spending per faculty member, to equalize large and small schools, and came up with a slightly different ranking of the top 20:

| Rank                     | Research per faculty member |
|--------------------------|-----------------------------|
| 1. Stanford U.           | \$128,400                   |
| 2. Harvard U.            | 93,600                      |
| 3. Princeton U.          | 77,000                      |
| 4. Mass. Inst. of Tech.  | 76,400                      |
| 5. U. of Pennsylvania    | 74,500                      |
| 6. Cal. Inst. of Tech.   | 63,500                      |
| 7. Carnegie-Mellon U.    | 61,600                      |
| 8. George Washington U.  | 61,000                      |
| 9. U. of Cal., Berkeley  | 60,700                      |
| 10. Oklahoma State U.    | 60,100                      |
| 11. U. of Utah           | 57,000                      |
| 12. Columbia U.          | 55,970                      |
| 13. U. of Texas, Austin  | 52,503                      |
| 14. Washington U.        | 51,000                      |
| 15. Purdue U.            | 50,400                      |
| 16. Case Western Reserve | 50,100                      |
| 17. Brown U.             | 49,000                      |
| 18. U. of Michigan       | 48,000                      |
| 19. Rice U.              | 44,500                      |
| 20. Northwestern U.      | 44,500                      |

For an overall ranking, Mr. Glower combined the factors of citations per faculty member, research volume, and volume of research per faculty member.

Rankings by fields of engineering and level of instruction were based only on the number of citations per faculty member. —JACK MAGARRELL

## Indiana Adds \$3-Million to State Student-Aid Plan After Applications Soar

INDIANAPOLIS—The state of Indiana has put an extra \$3-million into its student-aid program to ease a strain created by a 50-per-cent increase in grant applications for this fall.

About 14,000 of the students who applied for grants were found eligible for the awards.

Brian Bosworth, executive assistant to Gov. Otis R. Bowen, said that because of the larger number of applicants, higher tuition rates, and changes in the formula for determining student need, the state originally had money to pay only 35 per cent of the maximum grant amounts.

Several hundred students attended a rally at the State House to protest the grant reductions.

## Parental Share Considered

After officials of the Indiana legislature agreed to provide the necessary additional funds, the state adjusted grant payments to 75 per cent of the maximum amount to students whose parental contribution to college costs was zero and to 50 per cent of the

maximum for those whose parental contributions were under \$1,500. It maintained the original level of 35 per cent of the maximum for those whose parental contribution was over \$1,500.

Mr. Bosworth said funds for the state grants had fallen short of the demand in 1979, also, and the budget for that year had been overspent.

## Program May Be Revised

The grant program may be revised at the next session of the legislature, he said.

One change, he said, might be an increase in the amount of their earnings that students would be expected to contribute toward college expenses. Another possible change, he said, might be for the state to decide what a fair contribution from parents should be.

Under the present system, the state accepts a parental-contribution formula used by the national College Scholarship Service, which is subject to change without notice to the states, he said. —JACK MAGARRELL

# NOTE

ONLY THE FOLLOWING PAGES OF THIS PUBLICATION  
HAVE BEEN FILMED

p. 1, 8.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_